



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/767,843	01/29/2004	James A. Proctor JR.	TAN-2-1408.01.US	2970

24374 7590 02/17/2011

VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER

MURPHY, RHONDA L

ART UNIT

PAPER NUMBER

2462

NOTIFICATION DATE

DELIVERY MODE

02/17/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eoffice@volpe-koenig.com

Office Action Summary	Application No. 10/767,843	Applicant(s) PROCTOR, JAMES A.	
	Examiner RHONDA MURPHY	Art Unit 2462	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8-11,13,14,18-20,42 and 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8-11,13,14,18-20,42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to the communication filed on 11/24/10. Accordingly, claims 5-7, 12, 15-17 and 21 have been canceled and claims 1-4, 8-11, 13, 14, 18-20, 42 and 43 are currently pending.

Response to Arguments

1. Applicant's arguments with respect to claims 1, 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 42 is objected to because of the following informality:
3. In claim 42, line 8, the phrase "difference unique orthogonal" is unclear and should be reworded. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1, 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 1, page 2, line 14, and page 3, line 1, recites "at least one reverse link signal" and it is unclear if this "reverse link signal" is one of the first plurality or second plurality of reverse link signals recited in lines 3-4 on page 2.

7. Claim 3, line 2, recites “the subscriber unit” and it is unclear which “subscriber” of the plurality of subscribers of claim 1, line 2, is being referenced.
8. Claim 4, line 2, recites “the subscriber unit” and it is unclear which “subscriber” of the plurality of subscribers of claim 1, line 2, is being referenced.
9. Claim 11, page 5, lines 6-7, recites “at least one reverse link signal” and it is unclear if this “reverse link signal” is one of the first plurality or second plurality of reverse link signals recited in line 3 on page 4.
10. Claim 13, line 2, recites “the subscriber unit” and it is unclear which “subscriber” of the plurality of subscribers of claim 11, line 2, is being referenced.
11. Claim 14, line 2, recites “the subscriber unit” and it is unclear which “subscriber” of the plurality of subscribers of claim 11, line 2, is being referenced.

Claim Rejections - 35 USC § 103

1. Claims 1, 2, 11, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. (US 6,324,160) in view of Giallorenzi et al. (US 6,332,008) and Hao et al. (US 7,272,163).

Regarding claims 1, 11, 42 and 43, Martin teaches an apparatus (Fig. 1) for receiving reverse link signals from a subscriber unit comprising: a receiver (antenna 10) that receives a first plurality of reverse link signals (col. 2, lines 55-63), wherein each said reverse link signal of the first plurality of reverse link signals is derived from at least a code and unique orthogonal sequence (Walsh code, col. 3, lines 2-5) and; a timing controller (circuit 22) that determines a

Art Unit: 2462

timing offset associated with at least one reverse link signal to align a timing of the at least one reverse link signal (col. 3, lines 29-43, 57-64; col. 4, lines 1-2).

Martin fails to explicitly disclose a *plurality* of subscriber units, each said reverse link signal of the second plurality of reverse link signals is derived from a unique pseudo noise (PN) sequence and aligning reverse link signals from other subscriber units.

However, Giallorenzi teaches a *plurality* of subscriber units (Fig. 1A; user 1 to n; col. 5, lines 32-33), each said reverse link signal of the second plurality of reverse link signals is derived from a unique pseudo noise (PN) sequence (Fig. 1A: col. 5, lines 35-38) aligning reverse link signals from other subscriber units (col. 9, lines 33-49 and further described in col. 12, lines 18-48).

In view of this, it would have been obvious to one skilled in the art to modify Martin's system by aligning signals from other subscriber units, so as to enable proper operation of the synchronous communication system.

Martin fails to explicitly teach a common pseudo noise (PN) sequence; however common codes are well known in the art.

Hao teaches using a common pseudo noise (PN) sequence (col. 2, lines 24-25; PN sequence) and unique orthogonal codes.

Therefore, it would have been obvious to one skilled in the art to include a common code for the purpose of associating the signals with a particular code that is common to the coverage area.

Regarding claim 2, Martin, Giallorenzi and Hao teach the apparatus and method according to claims 1 and 11 wherein Martin further teaches the timing

Art Unit: 2462

controller determines a fine timing offset and causes a fine phase adjustment of the common pseudo noise (PN) sequence code of the reverse link signal (col. 3, lines 29-43).

1. Claims 3 , 4, 8 - 10, 13, 14 and 18 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin, Giallorenzi and Hao as applied to claims 1 and 11 above, and further in view of Hadad (US 2007/0076583 A1).

Regarding claims 3, 4, 13 and 14, Martin and Hao teach the apparatus and method according to claims 1 and 11, but fail to explicitly disclose wherein the timing controller provides the gross timing offsets to the subscriber unit in the form of a timing command or report.

However, Hadad teaches wherein the timing controller provides the gross timing offsets to the subscriber unit in the form of a timing command (page 12, paragraph 269).

In view of this, it would have been obvious to one skilled in the art to provide timing offset information to the subscriber in the form of a command or report, for the purpose of correcting its alignment.

Regarding claims 8 and 18, Martin and Hao teach the apparatus and method according to claims 1 and 11 further including a power controller (circuits 35 and 36) that determines a power level of the aligned reverse link signal (col. 4, lines 26-32).

Martin fails to explicitly disclose providing feedback of the power level to the subscriber unit.

However, Hadad teaches disclose providing feedback of the power level to the subscriber unit (page 13, paragraphs 285).

In view of this, it would have been obvious to one skilled in the art to provide feedback of the power level to the subscriber, in order for the subscriber to transmit at a power level that allows for more efficient processing at the base station.

Regarding claims 9, 10, 19 and 20, Martin and Hao teach the apparatus and method according to claims 8 and 18, but fail to explicitly wherein the power controller provides the power level to the subscriber unit in the form of a power command or report.

However, Hadad teaches wherein the power controller provides the power level to the subscriber unit in the form of a power command (page 13, paragraph 285).

In view of this, it would have been obvious to one skilled in the art to provide the power level to the subscriber in the form of a command or report, for the purpose of notifying the subscriber of an appropriate power level to transmit.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RHONDA MURPHY whose telephone number is (571)272-3185. The examiner can normally be reached on Monday - Friday 9:00 - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

Art Unit: 2462

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/
Supervisory Patent Examiner, Art Unit
2462/Seema S. Rao/
Supervisory Patent Examiner, Art Unit 2462

Rhonda Murphy
Examiner
Art Unit 2462

/R. M./
Examiner, Art Unit 2462